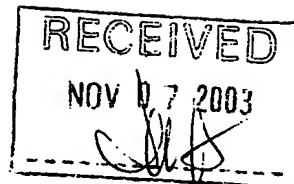


# PATENT COOPERATION TREATY



From the INTERNATIONAL SEARCHING AUTHORITY

## PCT

NOTIFICATION OF TRANSMITTAL OF  
THE INTERNATIONAL SEARCH REPORT  
OR THE DECLARATION

(PCT Rule 44.1)

*Ind to SK & BD*

To:  
HUSKY INJECTION MOLDING  
SYSTEMS LTD.  
AMC/IP Group  
500 Queen Street South  
Bolton, Ontario L7E 5S5  
CANADA

Date of mailing  
(day/month/year) 06/11/2003

Applicant's or agent's file reference  
H-676-0-WO

**FOR FURTHER ACTION** See paragraphs 1 and 4 below

International application No.  
PCT/CA 03/00143

International filing date  
(day/month/year) 04/02/2003

Applicant

HUSKY INJECTION MOLDING SYSTEMS LTD.

1. ☒ The applicant is hereby notified that the International Search Report has been established and is transmitted herewith.

**Filing of amendments and statement under Article 19:**

The applicant is entitled, if he so wishes, to amend the claims of the International Application (see Rule 46):

**When?** The time limit for filing such amendments is normally 2 months from the date of transmittal of the International Search Report; however, for more details, see the notes on the accompanying sheet.

**Where?** Directly to the International Bureau of WIPO  
34, chemin des Colombettes  
1211 Geneva 20, Switzerland  
Facsimile No.: (41-22) 740.14.35

**For more detailed instructions,** see the notes on the accompanying sheet.

2. ☐ The applicant is hereby notified that no International Search Report will be established and that the declaration under Article 17(2)(a) to that effect is transmitted herewith.

3. ☐ **With regard to the protest** against payment of (an) additional fee(s) under Rule 40.2, the applicant is notified that:

☐ the protest together with the decision thereon has been transmitted to the International Bureau together with the applicant's request to forward the texts of both the protest and the decision thereon to the designated Offices.

☐ no decision has been made yet on the protest; the applicant will be notified as soon as a decision is made.

4. **Further action(s):** The applicant is reminded of the following:

Shortly after **18 months** from the priority date, the international application will be published by the International Bureau. If the applicant wishes to avoid or postpone publication, a notice of withdrawal of the international application, or of the priority claim, must reach the International Bureau as provided in Rules 90*bis*.1 and 90*bis*.3, respectively, before the completion of the technical preparations for international publication.

Within **19 months** from the priority date, a demand for international preliminary examination must be filed if the applicant wishes to postpone the entry into the national phase until 30 months from the priority date (in some Offices even later).

Within **20 months** from the priority date, the applicant must perform the prescribed acts for entry into the national phase before all designated Offices which have not been elected in the demand or in a later election within 19 months from the priority date or could not be elected because they are not bound by Chapter II.

Name and mailing address of the International Searching Authority



European Patent Office, P.B. 5818 Patentlaan 2  
NL-2280 HV Rijswijk  
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,  
Fax: (+31-70) 340-3016

Authorized officer

Malene Strarup

# PATENT COOPERATION TREATY

# PCT

## INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference <b>H-676-0-W0</b>	<b>FOR FURTHER ACTION</b> see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.	
International application No. <b>PCT/CA 03/ 00143</b>	International filing date (day/month/year) <b>04/02/2003</b>	(Earliest) Priority Date (day/month/year)
Applicant  <b>HUSKY INJECTION MOLDING SYSTEMS LTD.</b>		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 3 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

### 1. Basis of the report

- a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

- b. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international search was carried out on the basis of the sequence listing :

☐ contained in the international application in written form.

☐ filed together with the international application in computer readable form.

☐ furnished subsequently to this Authority in written form.

☐ furnished subsequently to this Authority in computer readable form.

☐ the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.

☐ the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished

2. ☐ **Certain claims were found unsearchable** (See Box I).

3. ☐ **Unity of invention is lacking** (see Box II).

4. With regard to the **title**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. The figure of the **drawings** to be published with the abstract is Figure No.

☒ as suggested by the applicant.

☐ because the applicant failed to suggest a figure.

☐ because this figure better characterizes the invention.

5

☐ None of the figures.

## INTERNATIONAL SEARCH REPORT

International Application No

PCT/CA 03/00143

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 B29C45/27 B29C45/28

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 B29C

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, PAJ, WPI Data

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 5 894 023 A (BLANK MICHAEL ET AL) 13 April 1999 (1999-04-13) the whole document	1-21
A	PATENT ABSTRACTS OF JAPAN vol. 1997, no. 03, 31 March 1997 (1997-03-31) & JP 8 300418 A (IKEGAMI KANAGATA KOGYO KK), 19 November 1996 (1996-11-19) abstract	1-21
A	EP 0 468 485 A (MOLD MASTERS LTD) 29 January 1992 (1992-01-29) the whole document	1-21

☐ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

## \* Special categories of cited documents:

- \*A\* document defining the general state of the art which is not considered to be of particular relevance
- \*E\* earlier document but published on or after the international filing date
- \*L\* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- \*O\* document referring to an oral disclosure, use, exhibition or other means
- \*P\* document published prior to the international filing date but later than the priority date claimed

- \*T\* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- \*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- \*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
- \*&\* document member of the same patent family

Date of the actual completion of the international search

29 October 2003

Date of mailing of the international search report

06/11/2003

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2  
NL - 2280 HV Rijswijk  
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,  
Fax: (+31-70) 340-3016

Authorized officer

Lanz, P

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/CA 03/00143

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 5894023	A	13-04-1999	DE 19606045 A1	21-08-1997
			CA 2192611 A1	20-08-1997
			EP 0790116 A2	20-08-1997
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JP 8300418	A	19-11-1996	JP 3107502 B2	13-11-2000
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EP 0468485	A	29-01-1992	CA 2022122 A1	28-01-1992
			AT 129180 T	15-11-1995
			DE 69113906 D1	23-11-1995
			DE 69113906 T2	25-04-1996
			EP 0468485 A2	29-01-1992
			JP 2989043 B2	13-12-1999
			JP 4226725 A	17-08-1992
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# EUROPEAN PATENT OFFICE

## Patent Abstracts of Japan

PUBLICATION NUMBER : 08300418  
PUBLICATION DATE : 19-11-96

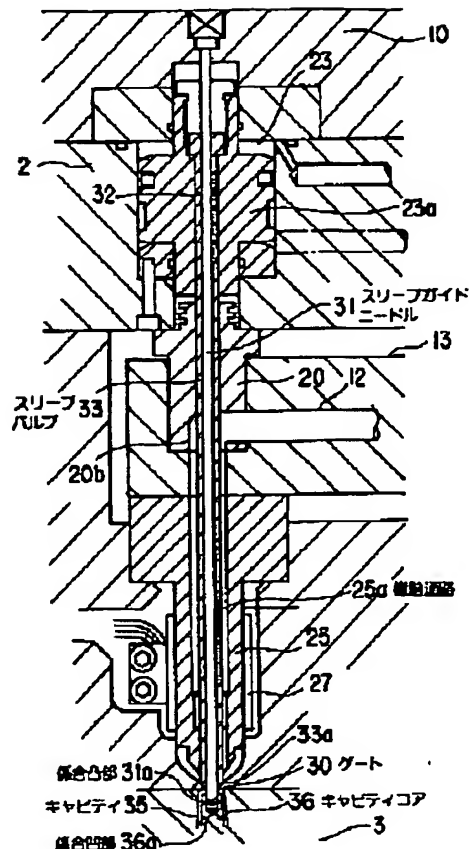
APPLICATION DATE : 28-04-95  
APPLICATION NUMBER : 07105595

APPLICANT : IKEGAMI KANAGATA KOGYO KK;

INVENTOR : SUZUKI JIRO;

INT.CL. : B29C 45/28 B29C 45/04 B29C 45/74

TITLE : INJECTION MOLDING DIE



ABSTRACT : PURPOSE: To provide an injection molding die in which resin flows uniformly into a cavity, and a pressure loss is reduced and which can give a high quality molded product.

CONSTITUTION: A movable die 3 which can advance/back to/from a fixed die 2 is provided, and a cavity 35 is formed between the dies 2, 3. A resin injection port, a resin passage 25a which communicates with the port, and a ring-shaped gate 30 which communicates with the passage 25a and leads molten resin to the cavity 35 are installed. In addition, a sleeve guide needle 31 is installed which is bonded/supported to/by a cavity core 36 which penetrates the passage 25a and the gate 30 and forms the cavity by its end part, and a sleeve valve 33 which opens/closes the gate 30 freely advancingly/backing in the axial direction is engaged with the needle 31.

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